

REMARKS

Claims 1 and 4 have been amended herein. Claims 5-20 and 23-30 were previously withdrawn. Subsequent to the entry of the present amendment, claims 1-4, 21 and 22 are pending and at issue. The amendment adds no new matter, as the claim language is fully supported by the specification and original claims.

I. Amendments to the Specification

The abstract has been amended to correct the spelling of “dimmer” to “dimer” in compliance with MPEP § 608.01(b).

II. Rejection under 35 USC § 112, 1st Paragraph

Claim 4 was rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the Office Action states that the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner alleges that there is no original disclosure supporting the new claim limitation that the sugar can be an aldose, a cyclic sugar, a dialdose, a ketodalose, a saccatriose or a gloside.

Applicants direct the Examiner to the definition of “saccharide group” defining a saccharide as “a carbohydrate which is a polyhydroxy aldehyde or ketone, or derivative thereof...” (Pub. No. US2009/0247732 page 4, ¶ 0051). By definition, saccharides contain one or more aldehyde or ketone groups. Thus, an aldose or ketose is a synonym for monosaccharides containing one aldehyde or ketone group per molecule. Glucose and fructose are examples of common aldoses and ketoses respectively. In addition, a derivative thereof would explicitly include additional aldehyde or ketone groups and combinations of aldehyde or ketone groups. Therefore, the Applicants contemplated dialdoses, diketoses and ketoaldoses.

The Examiner in the Office Action, page 2, specifically omitted from the rejection of claim 4 under the first paragraph of § 112, the terms ketoses and diketoses. Applicants assume that by omitting the terms ketoses and diketoses, the Examiner believes

Applicants to have satisfied the requirements of § 112, first paragraph with respect to these terms. The Examiner has alleged that Applicants have not satisfied the requirements of § 112, first paragraph with respect to the term aldose. Interestingly, the Examiner's § 102(b) rejection, as will be discussed below, is based on a compound including the carbohydrate 2-deoxy-2-acetamidoglucopyranosyl, which, in its open configuration is in fact an aldose. Thus, the Examiner seems to suggest that Applicants written description does in fact contemplate aldoses. In any event, the definitions for the term "saccharide group" in the written description provide support that Applicants had within their possession an aldose, dialdose and ketoaldose. Further, Applicants define the term "sugar" as including "saccharides [that] can be either in their open or preferably in their pyranose form." (Pub. No. US2009/0247732 page 4, ¶ 0052). Therefore, Applicants also contemplated cyclic sugars.

Applicants have amended claim 4 herein to remove the terms saccatrioses and glosides and have corrected the spelling of "ketodaloses" to "ketoaldoses."

III. Rejection under 35 USC § 112, 2d Paragraph

Claims 1-4, 21 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action states that Formula I is unclear. In addition, the Markush group recited in claim 4 is unclear because "carbohydrates" and "saccharides" do not appear to be species of the amino sugar, deoxy sugar or sialic acid sugar being defined in the claim. Without acquiescing to the reasoning offered by the Office Action, in order to expedite prosecution towards allowance, Applicants have amended claim 1 herein to remove the phrase "any natural amino acid or amino acid surrogate" describing R₄ and R₅ and clarify the claimed invention. Further, without acquiescing to the reasoning offered by the Office Action, in order to expedite prosecution towards allowance, Applicants have amended claim 4 herein to remove the terms "carbohydrates" and "saccharides" and clarify the claimed invention.

IV. Objections to Claims

Claims 1-4, 21 and 22 were objected to because of several informalities. Accordingly, Applicants have amended claims 1 and 4 per the Examiner's instruction. Specifically, claim 1 was amended at line 9 to delete the comma after "by." At claim 4, line 3, "or" was inserted before "acidic." At claim 4, line 5, "or" was changed to "and" so that standard Markush terminology was used.

V. Rejection under 37 C.F.R. § 1.75

The Examiner has advised Applicants that should claim 1 be found allowable, claim 4 will be objected to under 37 C.F.R. § 1.75 as being a substantial duplicate thereof. Subsequent to the entry of the present amendments to claim 4, Applicants have satisfied the requirements of 37 C.F.R. § 1.75 and further limited amino sugars, deoxy sugars or sialic acid sugars recited in claim 1.

VI. Rejection under 35 USC §102

Claims 1-4, 21 and 22 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Wagner et al (U.S. Patent No. 3,971,736 hereinafter, "Wagner"). Applicants respectfully traverse this rejection on the following grounds.

To anticipate a claim, the single prior art reference must disclose each and every element of the claim under consideration. *In re Spada*, 15 USPQ2d 1655 (Fed. Cir. 1990); *Connell v. Sears Roebuck & Co.*, 220 USPQ 193, 198 (Fed. Cir. 1983); MPEP § 2131. There must be no difference between the reference disclosure and the claimed invention. *Scripps Clinic & Research Found. v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991). Furthermore, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

The Office Action alleges that Example 9 of Wagner teaches a compound present in the filtrate which is 3,4,6-tri-O-acetyl-2-deoxy-2-acetamidoxyranosyl-DPhe-Pro-Phe-Phe-Val-DLeu-OEt that corresponds to Applicants' Formula 1 in which m=1; R₁ is

3,4,6-tri-O-acetyl-2-deoxy-2-acetamido-*glucopyranosyl*; R₂ is NH; R₃ is a linker which is arylalkyl (i.e. the phenyl-CH₂-CH from the DPhe residue); and NH-R₄-C(=O)-NH-(R₅)_n-CO is Pro-Phe-Phe-Val-DLeu.

Subsequent to the entry of the present amendments to claim 1, Applicants have removed the compound of Formula I from the teachings of Wagner. Specifically, the R₃ linker is no longer composed of arylalkyl residues.

Accordingly, Wagner fails to anticipate the claimed invention because it does not disclose each and every element of independent claim 1 under consideration. Claims 2-4, 21 and 22 by definition contain all of the limitations of claim 1. Therefore, Applicants respectfully submit that claims 2-4, 21 and 22 are patentable over the cited reference for the reasons given above with regard to independent claim 1 as well because of the additional limitations contained therein.

Therefore, Applicant respectfully requests that this rejection be withdrawn.

CONCLUSION

In view of the amendments and above remarks, it is submitted that the claims are in condition for allowance, and a notice to that effect is respectfully requested.

The Examiner is invited to contact Applicant's undersigned representative if there are any questions relating to this application. Fees for a three-month extension of time are included with the filing of this paper. However, if additional fees are due, the Commissioner is authorized to charge any fees, or make any credits, to Deposit Account No. 502235 referencing the above-identified attorney docket number.

Respectfully submitted,

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